

# **Projects Impacting Federal Power**

## **Tulsa District**

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- **Interior Least Tern Operations and Habitat Creation**
- **Tulsa Vision 2025**
- **Dam Safety Issues**
  - ▶ **Keystone, Pine Creek, Robert S. Kerr, (Broken Bow Operations)**
- **Lake Eufaula Advisory Committee**
- **Broken Bow Seasonal Pool Update – Cultural Resources Impacts**
- **Arkansas River Navigation Improvement**
- **Oklahoma Comprehensive Water Plan Update**



# Interior Least Tern Operations and Habitat Creation

- In April of 2013 the Corps received a new Biological Option from the Fish and Wildlife Service. At this time the Corps is analyzing future needs and direction in terms of additional island creation.
- The Corps, with additional funding from SWPA, continues to maintain four man-made islands for ILT nesting habitat within the MKARNS System.
- Regulating flows associated with the nesting period continues balancing the competing interests of hydropower, requirements necessary to meet the biological opinion.
- The Corps has attempted to release water, mimicking hydropower releases, early in the nesting season to encourage the terns to nest higher on the sand bars. We call these water releases "conditioning flows". These water releases encourage the terns to nest higher, thus lessening the future affects of hydropower releases on the tern nesting, or lessening the affects of the tern nesting on hydropower releases.



# **Tulsa Vision 2025 Update**

- **Vision 2025 – Series of Tulsa County propositions to economic development and fund capital improvements including river improvements.**
- **Feasibility Study Charette for the Ark River Corridor Project conducted in Oct 2013 resulted in:**
  - ▶ **Scope of Study compliant with new planning standards**
  - ▶ **Revised schedule and cost estimate**
- **Next Steps**
  - ▶ **Execute new cost share agreement with Tulsa County**
  - ▶ **Compete for future Federal Funding**



# Dam Safety Issues

- **Keystone Lake** - DSAC 2 project due to embankment and seepage issues as well as a PMF overtopping issue. Issue Evaluation Study will be completed in FY15.
- **Pine Creek Lake** – DSAC 2 project due to seepage around the conduit. PED is underway. Construction to Start in early FY 15.
- **Robert S. Kerr Lock and Dam** – DSAC 2 has been revised up to DSAC 4. Problems related to foundation and abutment seepage.
- **Denison Dam** – DSAC 4 has been revised down to DSAC 3. Problems related to foundation seepage.



# Lake Eufaula Advisory Committee

- **Committee Objective:** To provide information and recommendations to the Corps for operation of Lake Eufaula to balance uses of the lake
  - Authorized by Section 3133 of WRDA 2007
- **Committee Composition:** Members will equally represent the project purposes for Lake Eufaula, which are: flood control, water supply, hydroelectric power, navigation, fish and wildlife and recreation
- Subject to appropriation of funds the Corps will conduct a reallocation study at federal expense
- Development of Interim Pool Management Plan
  - Subject to approval of reallocation study and funding availability
  - Considers recommendations of Lake Eufaula Advisory Committee
- **Current Status:** Final approval is pending review and approval at the Secretary of Defense's Office.



# **Broken Bow Seasonal Pool Update**

## **Cultural Resources Impacts**

- **Study purpose is to provide for the reallocation of water supply for the Mountain Fork Trout Fishery; no expense to the State of Oklahoma.**
- **Study examined a range of Alternatives**
- **Pool rise of 3 feet; flood storage was identified as an alternative**
- **Current Hydropower outputs would be maintained**
- **Substantial impacts to cultural resources**
- **Mitigation of cultural resources remains unresolved**



# Arkansas River Navigation Improvement

- **De-water-Repair Leaking Contact Blocks & Repair Miter Gate Damage:**
  - Newt Graham Lock & Dam
- **Install Missing Armor Plate:**
  - Newt Graham Lock & Dam
- **Sector Gear Bearing Replacement Downstream Miter Gates:**
  - Newt Graham Lock & Dam
- **Replace Primary Gearboxes & Gate Hoist Cables:**
  - Chouteau Lock & Dam Spillway Gates
- **Hydraulic System Upgrade:**
  - Newt Graham Lock and Dam
- **Clam Debris and Install New Intake Trash Racks:**
  - Robert S Kerr and Webbers Falls Powerhouses (WF Trashracks)





# Arkansas River Navigation Improvement

- **Study Completed 2005:** Examined 3 elements
  - System Flow Management
  - Navigation Channel Maintenance
  - Channel Depth
- **Each Element Examined:** Beneficial and adverse impacts in terms of flood control, water supply, hydropower, navigation, fish, wildlife, and recreation.
- **Selected Plans:**
  - Add new dredged material disposal sites in Oklahoma
  - Replaced existing flow management plan with new flow management plan
  - Increase depth of the Navigation Channel from 9 feet to 12 feet



# The Oklahoma Comprehensive Water Plan

Tulsa District is providing technical expertise, cost-shared funding, and input to assist the Oklahoma Water Resources Board with update of the Oklahoma Comprehensive Water Plan (OCWP). It includes a system approach to collaboratively develop existing, forecasted, and strategic information that will be integrated into the OCWP. It is being conducted in two parallel but inter-related paths of public/policy coordination and technical studies. The Oklahoma Water Resource Board has cost-share funding in place for this study.

**Phase 1** - Finalized and approved by the OWRB on October 17, 2011.

**Phase 2** - Currently underway and will involve site specific investigations to address priority issues within specific watersheds. Currently funded under Planning Assistance to States Authority.

